

Amendments to the Claims:

Following is a complete listing of the claims pending in the application, as amended, which replaces all prior versions and listings of claims in the application:

1-149. (Canceled.)

150. (Previously Presented) A method in a computing device for receiving themes representing contextual situations and customizing the received themes for use in providing appropriate responses to the represented contextual situations, the method comprising:

receiving at the computing device multiple uncustomized themes supplied from one or more external sources that further supply the multiple uncustomized themes to multiple other distinct computing devices whose users are distinct from a user of the computing device, each of the received themes representing a contextual situation and associated with a type of response that is appropriate to the represented contextual situation;

customizing at least one of the received themes to reflect the computing device and/or the user of the computing device;

receiving an indication of a current contextual situation;

determining that one of the customized themes represents the current contextual situation; and

providing the type of response that is associated with the one theme.

151. (Previously Presented) The method of claim 150 wherein the received multiple themes include a first theme from a first external source, wherein the first theme is customized by the computing device to reflect the computing device and/or a user of the computing device, and including, under control of each of multiple other computing devices:

receiving from one of the external sources the first theme; and

customizing the first theme to reflect the other computing device and/or a user of the other computing device, the customized first theme for the other computing device being distinct from the customized first theme for the computing device.

152. (Previously Presented) The method of claim 150 wherein the representing of a contextual situation by a theme is with multiple context attributes related to that contextual situation and with criteria for determining values of those context attributes that match that contextual situation, wherein the current contextual situation includes multiple context attribute values, and wherein the determining that the one theme represents the current contextual situation is performed automatically based on the included values of the current contextual situation containing values for the context attributes of the one theme that the criteria of the one theme determines to be matching values.

153. (Previously Presented) The method of claim 150 wherein the customizing of the received themes is based on explicit indications received from the user of the computing device.

154. (Previously Presented) The method of claim 150 wherein the customizing of the received themes is performed automatically without intervention by the user.

155. (Previously Presented) The method of claim 150 wherein the customizing of the received themes is based on likely preferences of the user of the computing device that are determined without intervention by the user.

156. (Previously Presented) The method of claim 155 including, after the determining of the likely preferences and before the customizing of the received theme, receiving explicit user approval of the customizing.

157. (Previously Presented) The method of claim 155 including monitoring actions of the user in order to learn the likely user preferences.

158. (Previously Presented) The method of claim 150 wherein the customizing of the received themes is to specialize the received themes to the user of the computing device.

159. (Previously Presented) The method of claim 150 wherein the customizing of the received themes is to specialize the received themes to the computing device.

160. (Previously Presented) The method of claim 150 wherein the customizing of the received themes is to modify the types of response that are associated with the received themes.

161. (Previously Presented) The method of claim 150 wherein the customizing of the received themes is to modify the contextual situations represented by the received themes.

162. (Previously Presented) The method of claim 150 wherein the receiving of one of the themes includes receiving at least one context attribute that is specified by that one theme, a context server module able to provide values for one or more context attributes specified by that one theme and/or a context client module capable of producing responses appropriate to the contextual situation represented by that one theme, and wherein the customizing of that received theme includes customizing one of the received context attributes, the received context server module, or the received context client module.

163. (Previously Presented) The method of claim 150 wherein the receiving of one of the themes includes receiving an associated theme layout that specifies information appropriate to the contextual situation represented by that theme and that specifies a manner of presenting the specified information, and wherein the customizing of that received theme includes customizing the associated theme layout.

164. (Previously Presented) The method of claim 150 including determining that the provided type of response associated with the one theme is inappropriate for the current contextual situation, and automatically customizing the one theme based on the determining.

165. (Previously Presented) The method of claim 164 wherein the determining is based on a received user indication.

166. (Previously Presented) The method of claim 150 including receiving an indication of a new contextual situation, determining that no available theme represents the new contextual situation, and automatically customizing one of the available themes based on the determining.

167. (Previously Presented) The method of claim 150 wherein the provided type of response includes presenting information to the user of the computing device that is appropriate to the current contextual situation.

168. (Previously Presented) The method of claim 150 wherein the customizing of one of the received themes is in such a manner that the associated type of response for the customized theme includes presenting information specific to the user of the computing device.

169. (Previously Presented) The method of claim 150 wherein the contextual situations represented by the received themes are activities of the user of the computing device.

170. (Previously Presented) The method of claim 150 wherein one of the represented contextual situations relates to a situation of the user of the computing device.

171. (Previously Presented) The method of claim 170 wherein the one represented contextual situation reflects a modeled mental state of the user.

172. (Previously Presented) The method of claim 150 wherein one of the represented contextual situations relates to a situation of the computing device.

173. (Previously Presented) The method of claim 150 wherein at least one of the represented contextual situations relates to a physical environment.

174. (Previously Presented) The method of claim 150 wherein at least one of the represented contextual situations relates to a cyber-environment of the user of the computing device.

175. (Previously Presented) The method of claim 150 wherein at least one of the received themes includes permission information that specifies how that theme can be customized, and wherein the customizing of that theme is performed in accordance with that permission information.

176. (Previously Presented) The method of claim 175 wherein the permission information specifies that the theme cannot be modified, and wherein the customizing of that theme in accordance with that permission information includes not customizing the theme.

177. (Previously Presented) A computer-readable medium whose contents cause a computing device to receive themes representing contextual situations and customize the received themes for use in providing appropriate responses to the represented contextual situations, by performing a method comprising:

receiving multiple themes each representing a contextual situation and associated with a type of response that is appropriate to the represented contextual situation, each of the received themes distributed by a remote source and available to be distributed to one or more other distinct computing devices;

customizing at least one of the received themes;

determining that one of the received themes represents a current contextual situation; and providing the type of response that is associated with the one theme.

178. (Previously Presented) The computer-readable medium of claim 177 wherein the computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents.

179. (Previously Presented) The computer-readable medium of claim 177 wherein the computer-readable medium is a memory of a computer system.

180. (Currently Amended) A computing device for receiving themes representing contextual situations and customizing the received themes for use in providing appropriate responses to the represented contextual situations, comprising:

a memory;

an input component capable of receiving at least one theme from an external source that distributes the at least one theme to multiple computing devices having distinct users, each of the received themes representing a contextual situation and associated with a type of response that is appropriate to the represented contextual situation;

a customizing component that when executed in the memory is capable of customizing at least one of the received themes in a manner specific to the computing device; and

a response provider component that when executed in the memory is capable of determining that one of the received themes represents a current contextual situation and providing the type of response that is associated with the one theme.

181. (Currently Amended) The computing device of claim 180 wherein the input component, the customizing component and the response provider component are executing each include software instructions for execution in the memory of the computing device.

182. (Previously Presented) The computing device of claim 180 wherein the computing device is a wearable computer.

183. (Currently Amended) A computer system for receiving themes representing contextual situations and customizing the received themes for use in providing appropriate responses to the represented contextual situations, comprising:

a memory;

means for receiving at least one theme from an external source that distributes the at least one theme to multiple computing devices having distinct users, each of the received themes representing a contextual situation and associated with a type of response that is appropriate to the represented contextual situation;

means for customizing at least one of the received themes in a manner specific to the computing device; and

means for determining that one of the received themes represents a current contextual situation and providing the type of response that is associated with the one theme.

184. (Previously Presented) A computer-implemented method for defining a default theme and customizing that theme for use by a portable computing device in presenting information that is appropriate to a contextual situation represented by the theme, the method comprising:

defining a default uncustomized theme representing a contextual situation by,

receiving a specification of the represented contextual situation;
receiving one or more indications of information that is appropriate to the represented contextual situation; and
defining a theme based on the received indications that can be used by any of multiple computing devices to present the appropriate information when a current contextual situation matches the represented contextual situation; and
customizing the defined default theme based on the portable computing device and based on a user of the portable computing device so that the portable computing device can use the customized theme to present the appropriate information to the user in a manner specific to the portable computing device and the user.

185. (Previously Presented) The method of claim 184 including distributing the customized theme to the portable computing device.

186. (Previously Presented) The method of claim 184 including customizing the defined default theme for each of multiple other computing devices having distinct users such that each of the customized themes are distinct.

187. (Previously Presented) The method of claim 184 wherein the received specification of the represented contextual situation includes one or more indications of multiple context attributes that are related to the represented contextual situation and of criteria for determining values of the indicated context attributes that match the represented contextual situation, and wherein the defined theme is determined to match a contextual situation when context information for that contextual situation includes values for the indicated context attributes that are determined by the indicated criteria to match the represented contextual situation.

188. (Previously Presented) The method of claim 184 wherein the customizing of the defined theme is based on explicit indications received from a user of the portable computing device.

189. (Previously Presented) The method of claim 184 wherein the customizing of the defined theme is based on likely preferences of a user of the portable computing device that are determined without intervention by the user.

190. (Previously Presented) The method of claim 189 including, after the determining of the likely preferences and before the customizing of the received theme, receiving explicit user approval of the customizing.

191. (Previously Presented) The method of claim 184 wherein the customizing of the defined theme includes specializing the defined theme to the user of the portable computing device.

192. (Previously Presented) The method of claim 184 wherein the customizing of the defined theme includes specializing the defined theme to the portable computing device.

193. (Previously Presented) The method of claim 184 wherein the customizing of the defined theme is to modify the appropriate information for the defined theme.

194. (Previously Presented) The method of claim 184 wherein the customizing of the defined theme is to modify the contextual situation represented by the defined theme.

195. (Previously Presented) The method of claim 184 including:
receiving an indication of a current contextual situation;
determining that a copy of the defined theme that has not been customized matches the current contextual situation; and
in response, presenting the indicated appropriate information for the defined theme.

196. (Previously Presented) The method of claim 184 wherein the defining of the theme includes associating a priority with the defined theme, and wherein the customizing of the theme includes modifying the priority.

197. (Previously Presented) The method of claim 184 wherein the defining of the theme includes associating permission information with the defined theme that specifies types of access to the defined theme that are allowed, and wherein the customizing of the theme includes modifying the permission information.

198. (Previously Presented) The method of claim 184 wherein the defining of the theme includes associating security information with the defined theme, and wherein the customizing of the theme includes modifying the security information.

199. (Previously Presented) The method of claim 184 wherein the defining of the theme includes specifying a relationship of the defined theme to other themes, and wherein the customizing of the theme includes modifying the specified relationship.

200. (Previously Presented) The method of claim 199 wherein the specified relationship is a category of themes that is associated with the defined theme.

201. (Previously Presented) The method of claim 184 wherein the defining of the theme includes associating a theme layout with the defined theme that includes one or more indications of the indicated appropriate information for the defined theme, and wherein the customizing of the theme includes modifying the theme layout.

202. (Previously Presented) The method of claim 184 wherein the defining of the theme includes generating a new context server module capable of generating context information for the represented contextual situation or of generating a new context client module capable of producing responses appropriate to the represented contextual situation, and wherein the customizing of the theme includes modifying the new context server module or new context client module.

203. (Previously Presented) A computer-readable medium containing instructions that when executed cause a computing device to define a default theme and customize that theme for

use in providing a response that is appropriate to a contextual situation represented by the theme, by performing a method comprising:

defining a default theme representing a contextual situation by,

receiving a specification of the represented contextual situation;

receiving one or more indications of a type of response that is appropriate to the represented contextual situation; and

defining a theme based on the received indications that can be used by any of multiple computing devices to provide the appropriate type of response when a current contextual situation matches the represented contextual situation; and

customizing the defined default theme in a specified manner so that the customized theme can be used to provide an appropriate type of response in a manner distinct from that of the default theme.

204. (Currently Amended) A computing device for defining a default theme and customizing that theme for use by a specified computing device in presenting information that is appropriate to a contextual situation represented by the theme, comprising:

a memory;

a theme definition component that when executed in the memory is capable of defining a default theme representing a contextual situation by receiving a specification of the represented contextual situation, receiving one or more indications of information that is appropriate to the represented contextual situation, and defining a theme based on the received indications that can be used by any of multiple computing devices to present the appropriate information when a current contextual situation matches the represented contextual situation; and

a theme customization component that when executed in the memory is capable of customizing the defined default theme to reflect a specified computing device so that the specified computing device can use the customized theme to present the appropriate information in a manner specific to the specified computing device.

205. (New) The computer-readable medium of claim 177 wherein the representing of a contextual situation by a theme is with multiple context attributes related to that contextual situation and with criteria for determining values of those context attributes that match that contextual situation, wherein the current contextual situation includes multiple context attribute

values, and wherein the determining that the one theme represents the current contextual situation is performed automatically based on the included values of the current contextual situation containing values for the context attributes of the one theme that the criteria of the one theme determines to be matching values.

206. (New) The computer-readable medium of claim 177 wherein the customizing of the received themes is performed automatically without intervention by a user of the computing device.

207. (New) The computer-readable medium of claim 177 wherein the customizing of the received themes is to specialize the received themes to a user of the computing device.

208. (New) The computer-readable medium of claim 177 wherein the customizing of the received themes is to specialize the received themes to the computing device.

209. (New) The computer-readable medium of claim 177 wherein the customizing of the received themes is to modify the types of response that are associated with the received themes.

210. (New) The computer-readable medium of claim 177 wherein the customizing of the received themes is to modify the contextual situations represented by the received themes.

211. (New) The computer-readable medium of claim 177 wherein the receiving of one of the themes includes receiving at least one context attribute that is specified by that one theme, a context server module able to provide values for one or more context attributes specified by that one theme and/or a context client module capable of producing responses appropriate to the contextual situation represented by that one theme, and wherein the customizing of that received theme includes customizing at least one of the received context attributes, the received context server module, and the received context client module.

212. (New) The computer-readable medium of claim 177 wherein the receiving of one of the themes includes receiving an associated theme layout that specifies information appropriate to the contextual situation represented by that theme and that specifies a manner of presenting the specified information, and wherein the customizing of that received theme includes customizing the associated theme layout.

213. (New) The computer-readable medium of claim 177 wherein the method further comprises determining that the provided type of response associated with the one theme is inappropriate for the current contextual situation, and automatically customizing the one theme based on the determining.

214. (New) The computer-readable medium of claim 177 wherein the method further comprises receiving an indication of a new contextual situation, determining that no available theme represents the new contextual situation, and automatically customizing one of the available themes based on the determining.

215. (New) The computer-readable medium of claim 177 wherein the provided type of response includes presenting information to a user of the computing device that is appropriate to the current contextual situation.

216. (New) The computer-readable medium of claim 177 wherein the contextual situations represented by the received themes are activities of a user of the computing device.

217. (New) The computer-readable medium of claim 177 wherein the computing device is a wearable computer.

218. (New) The computer-readable medium of claim 177 wherein the computing device is a cellular phone.

219. (New) The computer-readable medium of claim 177 wherein the computing device is a mobile phone.

220. (New) The computer-readable medium of claim 177 wherein the computing device is a handheld device mounted in a holster on a user of the handheld device.

221. (New) The computer-readable medium of claim 177 wherein the computing device is a thin client device.

222. (New) The method of claim 150 wherein the computing device is a wearable computer.

223. (New) The method of claim 150 wherein the computing device is a cellular phone.

224. (New) The method of claim 150 wherein the computing device is a mobile phone.

225. (New) The method of claim 150 wherein the computing device is a handheld device mounted in a holster on a user of the handheld device.

226. (New) The method of claim 150 wherein the computing device is a thin client device.

227. (New) The computing device of claim 180 wherein the representing of a contextual situation by a theme is with multiple context attributes related to that contextual situation and with criteria for determining values of those context attributes that match that contextual situation, wherein the current contextual situation includes multiple context attribute values, and wherein the determining that the one theme represents the current contextual situation is performed automatically based on the included values of the current contextual situation containing values for the context attributes of the one theme that the criteria of the one theme determines to be matching values.

228. (New) The computing device of claim 180 wherein the customizing of the received themes is performed automatically without intervention by a user of the computing device.

229. (New) The computing device of claim 180 wherein the customizing of the received themes is to specialize the received themes to a user of the computing device.

230. (New) The computing device of claim 180 wherein the customizing of the received themes is to specialize the received themes to the computing device.

231. (New) The computing device of claim 180 wherein the provided type of response includes presenting information to a user of the computing device.

232. (New) The computing device of claim 180 wherein the computing device is a cellular phone.

233. (New) The computing device of claim 180 wherein the computing device is a mobile phone.

234. (New) The computing device of claim 180 wherein the computing device is a handheld device.

235. (New) The computing device of claim 180 wherein the computing device is a thin client device.

236. (New) The computer system of claim 183 wherein the provided type of response includes presenting information to a user of the computer system.

237. (New) The method of claim 184 wherein the method is performed by the portable computing device.

238. (New) The method of claim 237 wherein the customizing of the theme is performed automatically without intervention by the user of the portable computing device.

239. (New) The method of claim 184 wherein the method is performed by a computing system, and wherein the customizing of the theme is performed automatically without intervention by a user of the computing system.

240. (New) The method of claim 184 wherein the portable computing device is a wearable computer.

241. (New) The method of claim 184 wherein the portable computing device is a cellular phone.

242. (New) The method of claim 184 wherein the portable computing device is a mobile phone.

243. (New) The method of claim 184 wherein the portable computing device is a handheld device mounted in a holster on a user of the handheld device.

244. (New) The method of claim 184 wherein the portable computing device is a thin client device.

245. (New) The computer-readable medium of claim 203 wherein the customizing of the default theme is performed in a manner specific to an indicated computing device and/or to a user of the indicated computing device.

246. (New) The computer-readable medium of claim 245 wherein the method further comprises distributing the customized theme to the indicated computing device.

247. (New) The computer-readable medium of claim 203 wherein the received specification of the represented contextual situation includes one or more indications of multiple

context attributes that are related to the represented contextual situation and of criteria for determining values of the indicated context attributes that match the represented contextual situation, and wherein the defined theme is determined to match a contextual situation when context information for that contextual situation includes values for the indicated context attributes that are determined by the indicated criteria to match the represented contextual situation.

248. (New) The computer-readable medium of claim 203 wherein the customizing of the theme is performed automatically without intervention by any users.

249. (New) The computer-readable medium of claim 203 wherein the method further comprises using the customized theme to provide the appropriate type of response when the represented contextual situation occurs.

250. (New) The computer-readable medium of claim 249 wherein the providing of the appropriate type of response includes presenting information to a user of the computing device.

251. (New) The computer-readable medium of claim 203 wherein the method further comprises using the customized theme to provide the appropriate type of response to a wearable computer.

252. (New) The computer-readable medium of claim 203 wherein the method further comprises using the customized theme to provide the appropriate type of response to a cellular phone.

253. (New) The computer-readable medium of claim 203 wherein the method further comprises using the customized theme to provide the appropriate type of response to a mobile phone.

254. (New) The computer-readable medium of claim 203 wherein the method further comprises using the customized theme to provide the appropriate type of response to a handheld device.

255. (New) The computer-readable medium of claim 203 wherein the method further comprises using the customized theme to provide the appropriate type of response to a thin client device.

256. (New) The computing device of claim 204 wherein the customizing of the default theme to reflect the specified computing device is performed in a manner based on a user of the specified computing device.

257. (New) The computing device of claim 204 further comprising a component capable of distributing the customized theme to the specified computing device.

258. (New) The computing device of claim 204 wherein the received specification of the represented contextual situation includes one or more indications of multiple context attributes that are related to the represented contextual situation and of criteria for determining values of the indicated context attributes that match the represented contextual situation, and wherein the defined theme is determined to match a contextual situation when context information for that contextual situation includes values for the indicated context attributes that are determined by the indicated criteria to match the represented contextual situation.

259. (New) The computing device of claim 204 wherein the customizing of the theme is performed automatically without intervention by any users.

260. (New) The computing device of claim 204 wherein the computing device is the specified computing device, and further comprising a component capable of using the customized theme to provide the appropriate type of response when the represented contextual situation occurs.

261. (New) The computing device of claim 204 wherein the specified computing device is a wearable computer.

262. (New) The computing device of claim 204 wherein the specified computing device is a cellular phone.

263. (New) The computing device of claim 204 wherein the specified computing device is a mobile phone.

264. (New) The computing device of claim 204 wherein the specified computing device is a handheld device.

265. (New) The computing device of claim 204 wherein the specified computing device is a thin client device.